

# Media separated solenoid valve VYKA-F7-M22C-12-PE-5YQ7

Part number: 8170088

FESTO



General operating condition

## Data sheet

| Feature  | Value  |
|--|--|
| Design   | Rocker valve with diaphragm seal   |
| Sealing principle                                    | Soft   |
| Material in contact with the medium                  | PEEK   |
| Suitable for use with food                           | See supplementary material information   |
| Valve function                                       | 2/2-way, single solenoid, closed   |
| Nominal size   | 1.2 mm   |
| Flow direction                                       | Reversible with restrictions   |
| Type of actuation                                    | Electrical   |
| Type of piloting                                     | Direct   |
| Type of reset  | Mechanical spring  |
| Manual override                                      | None   |
| Mounting position                                    | Any  |
| Type of mounting                                     | Via through-hole for M2 screw  |
| Electrical connection 1, connection type             | Socket   |
| Electrical connection 1, connector system            | Plug pattern Q7  |
| Electrical connection 1, number of connections/cores | 2  |
| Electrical connection 1, connection pattern          | 00997312   |
| Size   | 7  |
| Grid dimension                                       | 7.5 mm   |
| Fluid connection                                     | Flange   |
| Medium   | Liquid media<br>Gaseous media  |
| Note on the medium                                   | Observe resistance of materials that come into contact with the media<br>Maximum particle size 5 µm              |
| Internal volume                                      | 18 µl fluid chamber valve<br>24 µl valve with fluid connections  |
| Media temperature for fluids                         | 0 °C ... 50 °C   |
| Medium temperature gaseous media                     | 0 °C ... 50 °C   |
| Ambient temperature                                  | 0 °C ... 50 °C   |
| Storage temperature                                  | -20 °C ... 70 °C   |
| Medium pressure                                      | -0.05 MPa ... 0.2 MPa  |
| Medium pressure                                      | -0.5 bar ... 2 bar   |
| Medium pressure                                      | -7.25 psi ... 29 psi   |
| Note on the medium pressure                          | IN: -0.25 – 2 bar / -0.025 – 0.2 MPa / -3.625 – 29 psi<br>OUT: -0.5 - 1 bar / -0.05 - 0.1 MPa / -7.25 - 14.5 psi |
| Pressure difference                                  | 0.2 MPa  |

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|---|--|
| Pressure difference                                   | 2 bar  |
| Pressure difference                                   | 29 psi   |
| Burst pressure  | 2.3 MPa  |
| Burst pressure  | 23 bar   |
| Burst pressure  | 333.5 psi  |
| Operational voltage range DC                          | 12 V ... 26 V  |
| Note on operational voltage range DC                  | With electrical sub-base VAVE-K1-...   |
| Permissible voltage fluctuations                      | +/-10%   |
| Electrical power consumption                          | 3.5 W  |
| Information on power consumption                      | Low-current phase 0.3 W, high-current phase 3.5 W for 60 ms, in combination with VAVE-K1-...   |
| Characteristic coil data                              | 12 - 26 V DC: low-current phase 0.06 W, high-current phase 2.2 W   |
| Insulation material class                             | B  |
| Duty cycle  | 100% in conjunction with holding current reduction<br>Observe the notes on operating the solenoid valves.  |
| Max. switching frequency                              | 6 Hz   |
| Note on switching frequency                           | Dependent on the ambient temperature and installation state<br>At 100% duty cycle depending on ambient temperature and installation condition. Higher switching frequencies possible with duty cycle < 100%. |
| Switch-on time for fluids                             | 5 ms   |
| Switching time on gaseous media                       | 5 ms   |
| Note on switching time                                | Switching time depends on medium, temperature, medium pressure and individual operating conditions   |
| Standard nominal flow rate (standardised to DIN 1343) | 10 l/min   |
| Note on standard nominal flow rate                    | In case of a pressure drop of 1 -> 0 bar (gaseous media)   |
| Flow rate Kv  | 0.018 m <sup>3</sup> /h  |
| Flow rate Kv  | 0.3 l/min  |
| Note on flow rate Kv                                  | For water as medium<br>Pressure difference 1 bar   |
| Water flow rate at max. operating pressure            | 0.45 l/min   |
| Symbol  | 00992884   |
| Material housing                                      | PEEK<br>Reinforced PPA   |
| Material membrane                                     | EPDM   |
| Material seals  | EPDM   |
| Note on materials                                     | RoHS compliant   |
| LABS (PWIS) conformity                                | VDMA24364 zone III   |
| Product weight  | 10.9 g   |
| Degree of protection                                  | IP40   |
| Note on degree of protection                          | In mounted state   |
| Instructions on use                                   | For indoor use only  |
| Corrosion resistance class CRC                        | 0 - No corrosion stress  |